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USING GOAL ACCOMPLISHMENT STYLE TO PREDICT GEOGRAPHY ACADEMIC ACHIEVEMENT OF PROSPECTIVE TEACHERS

ÖĞRETMEN ADAYLARININ COĞRAFYA DERSİ AKADEMİK BAŞARILARININ BELİRLENMESİNDE HEDEFİ GERÇEKLEŞTİRME STİLİNİN KULLANIMI

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ABSTRACT

This study was conducted (1) to identify the natures of goal accomplishment styles of prospective social studies teachers, (2) to determine the relationship between prospective techers' goal accomplishment styles, and academic achievement in geography, and (3) to use the data obtained from this study to make recommendations for enhancing Turkish Geography Curriculum and Teaching methods. This study was based on the Goal Orientation Index (GOI) by Atman, the instrument was administrated to 158 subjects - prospective social studies teachers. The multiple regression and descriptive data analysis were used to analyze the data obtained from instrument and to test the hypotheses of the study. The results showed that prospective social studies teachers' goal accomplishment style is a good predictor of geography academic achievement.

Key Words: Goal accomplishment style, conation, learning style, geography, social studies.

ÖZ

Bu çalışmanın amacı; (1) sosyal bilgiler öğretmen adaylarının sahip oldukları hedefi gerçekleştirme stillerini tanımlamak, (2) öğretmen adaylarının hedefi gerçekleştirme stilleri ile coğrafya dersi akademik başarıları arasındaki ilişkiyi belirlemek ve (3) bu çalışmadan elde edilen bulguların coğrafya dersi öğretim programı ve öğretim yöntemlerinin geliştirilmesine yönelik öneriler getirmektir. Bu araştırma, Atman tarafından geliştirilen Hedefi Gerçekleştirme Indeksi (HGI)'ne dayandırılmıştır. Katılımcılardan elde edilen verilerin analizinde ve araştırma hipotezlerinin test edilmesinde, çoklu regresyon ve betimsel veri analizi kullanılmıştır. Sonuçlar, sosyal bilgiler öğretmen adaylarının hedefi gerçekleştirme stillerinin coğrafya dersi akademik başarısının iyi bir yordayıcısı olduğunu göstermiştir.

Anahtar Kelimeler: Hedefi gerçekleştirme stili, çaba, öğrenme stili, coğrafya, sosyal bilgiler

INTRODUCTION

The concepts of "learning style" and "goal accomplishment style" have become one of the most significant recent developments in teaching and learning in geography. Increasingly, leaders in education are recognizing that the processes of learning and goal setting ability are critically important and that understanding the ways which individuals learn is the key to educational improvement. Thus, considerable research in education has been directed toward

identifying the effects that individual differences, as expressed through the concept, goal accomplishment style has on academic achievement (Yoon, 2000:1).

Keeping learning styles in mind as you develop lesson plans will help maintain your students' interest and help them excel. It's also important to recognize that students have different natural strengths. As far as geographic education is concerned, it's important to help students realize their potential and not stereotype students as "smart" or "stupid". And likewise, if a student does poorly on tests, it doesnt mean the child is stupid or will not be a productive member of society. Intelligence is a complex stew of many types of mental abilities and is influenced by a variety of factors. It is important to help all students feel that they have the potential to learn and to Excel! (Braus and Wood, 1993: 77-78).

In this context, the traditional definitions of "conation" by English and English (1958:104) are as follows: Conation: That aspect of mental process or behavior by which it tends to develop into something else; an intrinsic "unrest" of the organism... almost the opposite of homeostasis. A conscious tendency to act; a conscious striving... It is now seldom used as a specific form of behavior, rather for an aspect found in all. Impulse, desire, volition, purposive striving all emphasize the conative aspect.

According to Snow, Corno, and Jackson III (1996), conation has two subdivisions, motivation and volition.

Corno (1993, 1994; Corno & Kanfer, 1993) has surveyed the wide variety of conative constructs and process. According to Corno, motivation and volition are main continuums to form the conation. The domain of motivation is involved with decision making and choice with respect of individual goals. Within this domain, researchers have identified various personal determinants of decision-making or willingness to engage in learning or performance tasks. These determinants include achievement orientation such as personal need for achievement and fear of failure, various other intrinsic and extrinsic goals, and future time perspectives with respect to goal, self-directed orientation such as self-concept, self-worth, and self-efficacy. The other comprises values, attitudes, and interests in preferred subject matter, tasks, or procedures.

The domain of volition includes constructs involved in implementing goals, assisting individuals to carry out their best-laid plans and intentions. One volition category of individual difference is action control. It is used to handle competing intentions and other distractions affecting attention processes, and other goal-related action engaged in by

individuals to manage available resources in timely and efficient ways. A second category is other-directed orientations. It is also located under volition because individuals who open to external influence from others must at some level permit it, even pursue it, and because individuals must behave intentionally in attempt to influence others (Snow, Corno, & Jackson III, 1996).

Individuals have different conation cycle profiles and their conation orientation can interact with teaching and instructional treatment alternatives to influence learning. Therefore, there are eight interrelated goals for further work on individual differences in conative functions (Snow, Corno, Jackson III, 1996:293). The goals are:

1. understanding the importance of these individual differences in and for education
2. understanding how these functions operate in adaptive transaction with educational situations
3. deriving taxonomy of educational situation charactaristics that complements that for personal characteristics and enriches our understanding of person-situation interaction
4. understanding the development and specialization of conative functions in educational settings
5. building a functional integration across affective, conative, and cognitive constructs to a whole-person view of human learners as individuals
6. building improved assessment, research, and evaluation methodologies in support of the above goals
7. investigating the role of differential conative functions among educational personnel other than students
8. developing a richer and more productive relationship between the constructs and methods of educational practice.

Although reported research studies that have been reported have been carried out in the United States, in recent years there has been an increased need for research regarding learning styles, conative orientation (ability to striving toward set goals), and teaching style in Turkish classrooms. This need is significant because one of the most serious educational problems in Turkey is that teaching is undertaken without consideration of individual differences among students: i.e. teaching materials, classroom instruction methods, and educational methods are the same for all students. Teachers rely heavily on the technique of lecturing, regardless of the characteristics of

instructional objectives. Traditional methods of teaching focus primarily on supplying students with the necessary information/skills for concept development and subsequent rehearsal for learning retention (Szewczyk, 1987). This traditional instuctional methodology (mainly lecture and recitation) may neglect many aspects of individual learning preferences that contribute toward more effective cognitive growth (McCarthy, 1981). Traditional teaching modes in Turkey are aimed at what is perceived to be the "average" learner. Therefore, they stand in constrast to methods which recognize the unique preference of each students.

Since the beginning of the 1996s, the YÖK (The Institutions of Higher Education)/World Bank National Education Development Project for Preservice Teacher Education, has carried out an innovative effort to streamline the Turkish educational system. The major thrust of the educational innovation has been directed toward the development of autonomous, rational thinking, decision-making ability and on increasing the learner's problem solving ability. The type of education which will serve this new thrust demands that teaching depart from the traditional method, i.e.: rote-learning and memorization of bits of knowledge. The new teaching methods are those that are varied to meet individual needs, and that develop critical thinking capability, inquiry skills and creativity through experiential learning.

The YÖK (The Institutions of Higher Education)/World Bank National Education Development Project for Pre-service Teacher Education (1996) developed suggestions for new teaching method (Demirtaş, 1996:5-9). These include;

Behaviorism; according to that theory, the teacher is the main actor. He/she makes decisions about what content to study and when it will be studied; what texts will be read, what assignments will be given and when they will be completed. Pupils learn be receive information from the teacher or the text (thus, the name reception learning).

The other approach is pupil centered, based mainly on cognitive learning psychologies. Here the pupils are the main actors. The teacher's role is to stimulate, motivate, and guide pupils as they take responsibility for their own learning. The methods used are problem-solving and discovery (thus, the name discovery learning).

The key to successful teaching is to get pupils involved actively in their learning. This can be done in either a teacher or pupil centered classroom. But how?

Geography does not have a set of specific rules to follow that will guarantee success. Here are five general suggestions about methods and strategies.

(1) Emphasize the teaching of skills and higher lever thinking strategies.
(2) Use a variety of teaching and evaluation strategies.
(3) Set up a geography laboratuary in their classrooms or outdoors.
(4) Continually stress with pupils that geography has relevance for people who will live most of their lives in the 21st century.
(5) Focus the study of geography on large land areas.

The great diversity among pupils is fascinating but also frustrating. Even master teachers cannot take all these differences into consideration. But every teacher can think of ways to provide for some of the range of differences that exists in their classes.

Let's look at some summary statements of the ways individual differences can be met. What can you do as a teacher?

(1) First you can examine your own attitudes about pupils of varying ability.
(2) You should seek to know as much about your pupils as you possibly can learn.
(3) You need to adjust your classroom methods and strategies in order to reach all boys and girls.
(4) Teachers can take lead in developing courses that are more appropriate for pupils who are not university bound.

Geography is not a collection of arcane information. Rather, it is the study of spatial aspects of human existence. People everywhere need to know about the nature of their world and their place in it. Geography has much more to do with asking questions and solving problems than it dose with rote memorization of isolated facts.

So what exactly is geography? It is an integrative discipline that brings together the physical and human dimensions of the world in the study of people, places, and environments. Its subject matter is Earth's surface, and the processes that shape it, the relationships between people and environments, and the connections between people and places.

Geography is composed of three interrelated and inseparable components: subject matter, skills, and perspectives. Subject matter is a distillation of essential knowledge and is the foundation for the geography standards. Subject matter is the

basis on which geographic skills are brought to bear. These skills are: (1) asking geographic questions, (2) acquiring geographic information, (3) organizing geographic information, (4) analyzing geographic information, and (5) answering geographic questions. Knowledge and skills must be considered from two perspectives: Spatial and ecological (NCGE, 1994:18-31).

Mastering any single component of geography is not equivalent to mastering geography. Subject matter, skills, and perspectives are woven together with in the study of geography. These combinations are necessary in order to be geographically informed. None can stand alone.

Geography has much more to do with asking questions and solving spatial and ecological problems than it dose with rote memorization of isolated facts. However, the dominant teaching methods in the geography classes of Turkey are teacher-centered lectures, textbook-centered lectures, recitation, paper and pencil tests, and fact-and-concept oriented learning (Şahin, 2001:10). In the classroom context, lecturing and memorization of knowledge are popular teaching methods.

Today, in conformity with the general tendency in the field of education, the recommended teaching style for geography education in Turkey is a student-centered experiential model including fieldwork, projects, problem based learning, thematic learning, discussion, resource-based teaching, and computer assisted teaching.

Through various teaching methods, students come to understand the connections and relationships between themselves and people, places, and environments across the world. This understanding is vital to geographic knowledge in today's society. All countries depend on their citizens' knowledge of the world to compete in the global economy, to ensure the viability of the Earth's environments, and to comprehend the cultures of the diverse peoples who share our planet. These ideals are formulated and designed to inspire students to do better and to learn enough geography to enable them to lead fulfilling and responsible lives. The goal of geographic education is not the memorization of isolated facts, but the skill of thinking geographically (NCGE, 1994).

Geography teachers need to develop their knowledge and understanding of processes of teaching and learning in geography. There are no short cuts to acquiring this pedagogic knowledge. Central to the development of a geography teacher's

pedagogic knowledge is the need to build up a broad repertoire of teaching styles and strategies (Balderstone, 2002:108-109).

Because Turkish geography education needs new teaching methods, strategies, and styles that will promote geographical thinking, data from this study will assist educators as they examine the relationships among, goal accomplishment style, and academic achievement. Studying the data will (1) help to develop a data base of Turkish students' goal accomplishment styles in geography education (2) explore the implications of student's goal accomplishment style for academic achievement (3) aid in making geography textbooks' contents more concrete and effective and (4) create standards for geography education.

WHAT IS CONATION?

Conation is derived from the Latin verb *conari*, to strive (Atman, 1988, Davis, 1995). The American Heritage Dictionary of English Language defines conation as "the aspect of mental processes or behavior directed toward action or change and including desire, volition and striving." Atman (1986a) defines conation as "vectored energy", e.g., personal energy having both direction and magnitude. Kolbe (1990) views conation as an orientation toward action. Conation is the link between knowing (cognition) and feeling (affection) which manifests itself as the action.

Conation is a basic component in Mezirow's philosophy of transformative learning. For Mezirow, transformative learning occurs when change is effected in a person's *frame of reference*. For Mezirow, conation is a major facet of a person's frame of reference (Mezirow, 1997). Further, Mezirow believes that a learner exercises conation through a line of action or moving toward a goal (Mezirow, 1981) and that these volitional acts are unique to each individual. It is this movement towards a goal that Atman attempts to measure with her Goal Orientation Index (GOI). The GOI developed by Atman is based on Jung's personality theory and measures a learner's goal accomplishment style by placing a learner in the context of a twelve-step conation cycle (Atman, 1987). But from where did the concept of conation come?

Development of Conation - The tripartite theory of cognition-affection-conation began during the Enlightenment Period (Hilgard 1980). Writers of the Enlightenment

period include Leibnitz (1646-1716), Kant (1724-1804) and Alexander Baumgarten, who introduced the idea of affection or feeling as part of decision making. It was Moses Mendelssohn (1729-1789) in his "Letters on Sensation" which contained "the first clear statement of the threefold classification" of cognition, feeling and will (Hilgard, 1980:108).

The tripartite classification was adopted by nineteenth century's Scottish, British and American psychologists. Dungald Stewart, Thomas Reid and William Hamilton, all members of the Scottish School, furthered the tripartite position regarding cognition, affection and will in human behavior (Hilgard, 1980; Davis, 1995). Alexander Bain, a noted British psychologist, defined conation as will or desire in his writings. It was Bain who wrote about the classification of mental activities, e.g., cognition (knowing), affection (valuing) and conation (striving). In America, William James is credited with conducting research on conation along with John Witherspoon, a Scottish psychologist who came to American to study and write (Hershberger, 1989; Davis, 1995).

Use of the tripartite classification of actions came to an end in the United States with the arrival of Behaviorism, which reached its apex in the 1950s (Hilgard, 1980). Behaviorism, based upon the research and writings of J.B. Watson, B.F. Skinner and Pavlov, focused on the attainment of objectives in the learning process. Conation, a concept not easily measured and quantified, then fell into disuse (Atman, 1987). The fundamentals of behaviorism were replaced by those of information-processing psychology. Again, there was no place for the study of will in learning. The will, and its influence in the role of learning, all but disappeared from American psychology. However, since the 1980's there has been a renewed interest in tripartite theory of the mind in America. (Davis, 1995; Corno and Kanfer, 1993; Snow, 1989). What individuals know about an issue (cognition), how they feel about the issue (affection) and their intention to act (conation), based upon their knowledge and their feelings, form the basis of the tripartite theory, and is again of interest to today's researchers (Davis, 1995). Katherine Kolbe (1990:9) a successful management consultant who predicates her work on conative attributes of clients describes tripartite theory as:

Cognitive	**Affective**	**Conative**
to know	to feel	to act
thinking	feeling	willing
thought	emotion	volition

epistemology	esthetics	ethics
knowing	caring	doing

Why should educators be concerned with conation? Success in a classroom, whether in a traditional or student centered classroom, requires certain attitudes, skills, and abilities from a student. From personal experience and conversations with students taking classes in the online format, I would argue that online classes require more discipline and time management skills than more traditional face to face courses. Perhaps the skills and abilities we are looking for in students have a conative component. For some researchers, such as Glade, academic success "depends on the acquisition of the necessary cognitive, affective and conative behaviors" (Glade, 1993:6). Gee's (1990) study measured the effects of learning styles on course completion rates. She suggested that in order for students to achieve academic success, teachers need to be aware of students' motivational attitudes and learning styles. The motivational attitudes include conation. Snow, Corno and Jackson (1996) believe that some combination of the cognitive, affective and conative is involved in a student's learning and achieving.

Cognition addresses the question of "how" knowledge is attained as well as "what" knowledge is learned. Affection involves the value and beliefs systems in place to guide the acquisition of knowledge. Conation is the purposeful striving toward the goal of knowledge acquisition, along with the requisite acting, planning and reflecting behavior (Hilgard, 1980; Atman, 1986; Steele, 1989; Glade, 1993).

Conation and Goal Setting - Some researchers, such as Atman and Davis, have suggested that perhaps the reason students of seemingly equal levels of intelligence and aptitude fall short of the mark while other exceed expectations is due to a student's level of conation or striving. As Kolbe (1990, p. 8) writes, "saying 'I will' is more important than IQ". It is the will, distinct from the powers of thinking and feeling, which can make the difference in succeeding. Intelligence guides one to making a wise choice, the emotions guide what you would like to choose. It is conation, however, that enables one to move on the option and actually make the selection (Kolbe, 1990:15.).

Researchers, such as Hilgard and Snow, are in agreement that time has come to "resurrect the study of the will and what part it plays in goal setting" (Snow, 1989:10).

Assagioli defined individuals having a strong will as determined, decisive, persistent, patient, organized, and having initiative and energy (Assagioli, 1973:19). According to Atman, it is this personality type which is a "successful striver" (Atman, 1988:8). These individuals have the capacity for self-motivation. Table 1 depicts Atman's conative taxonomy, the twelve steps of the conation cycle, and Assagioli's stages of the act of will (Atman, 1988:8).

Table 1. Stages Of Striving/Conation Cycle Steps and Stages Of Willing Compared

Stages of Striving Conative Domain (Atman, 1987)	**Steps in the Conation Cycle (Atman 1986)**	**Stages of Willing (Assagioli, 1973:135)**
1. Perception	11.Ooo & Ah! (Evaluate) 12. Purpose/Long Range Direction 1. Recognize need, problem, challenge, opportunity	1. Purpose Evaluation Motivation
2. Focus	2. Set goal	Intention
3. Engagement	3. Brainstorm alternatives 4. Assess risks 5. Select strategy 6. Get Your Act in Gear! (Visualize) 7. Organize	2. Deliberation 3. Choice/decision 4. Affirmation 5. Planning/programming
4. Involvement	8. Make it happen	6. Direction of the execution
5. Transcendence	9. Push on 10. Wrap it up	

Source: Atman, K. (1988)

As depicted in Table 1, the conative domain developed by Atman, has 5 stages (Atman, 1988:5). These stages include:

Stage one – Perception – the individual receives extrinsic and intrinsic stimuli as information.

Stage two – Focus – the information now becomes a goal, taking on value.

Stage three – Engagement – the individual, now goal-focused, raises questions. An action plan results.

Stage four – Involvement – the individual engages the situation at one of five attention levels: minimal, cursory, perfunctory, thorough, or absorbed.

Stage five – Transcendence – the individual immerses mind and body into the task so that mind, body and task become one.

Atman developed the Conation Cycle as a theoretical model of goal accomplishment. The model, a 12-step mnemonic visual, can be used by an individual to identify the actions needed to accomplish a goal "and monitor their behavior as the goal accomplishment process proceeds" (Atman, 1988:6). See Figure 1.

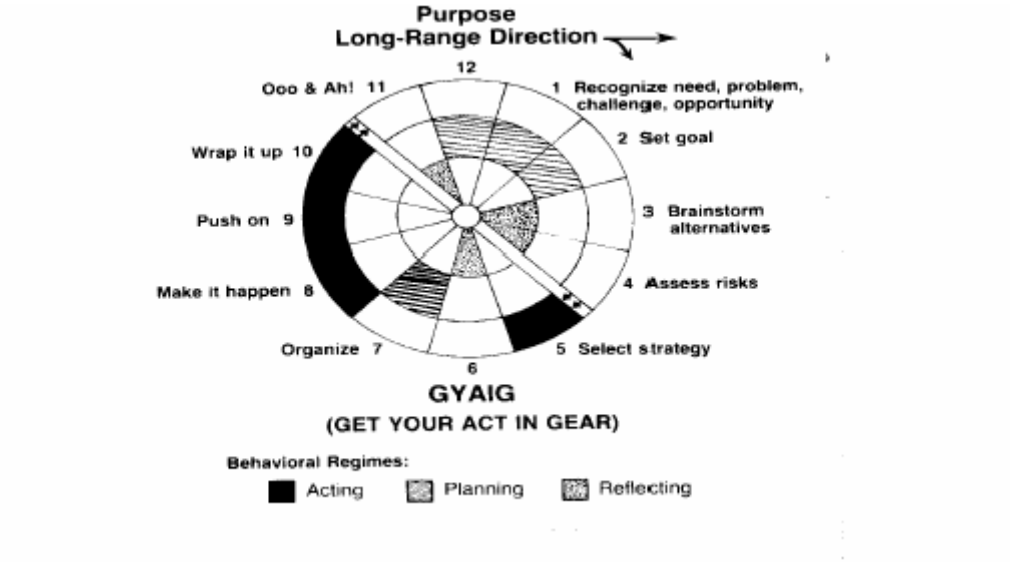

Figure 1. Conation Cycle

Achievement Orientation and the Conation Cycle

Atman (1986) proposes that conation should be considered a fourth mental domain. The four separate domains would then include cognitive-knowing, affective-valuing, conative-striving, and psychomotor-doing (fine/gross motor skill use). The separation of the conative activity of striving from the other mental domains sets the stage for better management of a subject's self-directed goal related behavior. Striving is always goal directed. Striving is expressed through action. Atman describes a sequence of steps that can be used to develop goal directed behavior. It is called the "Conation Cycle" (Atman, 1986).

The conation cycle is divided into four phases, which includes 12 precise steps of goal directing: phase one-exploration; phase two-commitment; phase three-administration; and phase four-denouement. The four phases and 12 steps follow:

Exploration (1) Recognize needs, problems, challenges and opportunities (Planning)
(2) Set Goal (Planning)
Commitment (3) Brain storm alternatives (Reflecting)
(4) Assess risk (Reflecting)
(5) Select Strategies (Acting)
(6) Get your act in gear (Reflecting)
Administration (7) Organize (Planning)
(8) Make it happen (Acting)
(9) Push on (Acting)
(10) Wrap it up (Acting)
Denouement (11) Ooh and ahh! Evaluate, critique and review (Reflecting)
(12) Purpose, long range direction (Planning)

In the various step of the cycle, the individual plans, acts, reflects, and draws upon his/her qualities of the will (Assagioli, 1973) .

Mueller (1998) summarized four phases and twelve steps of the conation cycle. The Exploration phase is made up of two steps: step 1, recognizing the need, problem, challenge, or opportunity and step 2, determining the objective. The conation cycle begins once a goal has been established. Whatever needs to be done to accomplish the goal is identified-step one. Furthermore, an objective is established in the direction of reaching the goal-step two. Accepting responsibility for the task is specifically what is at stake in this phase (Atman, 1986).

The commitment phase is made up of steps three through six: step 3, consider alternatives; step 4, assess risks and probabilities of success; step 5 select strategies; and step 6, getting your act in gear. The subject considers all the possible way to accomplish the objective-step three; and then analyzes the degree of risk, the probabilities of success or failure in each of the possible alternatives-step four. After considering all the positive and negative aspects of each alternative, and taking into account personal strength and weaknesses in relation to each, the individual selects a strategy. Psychic energy is directed and focused at this moment-step five. The commitment phase is where the subject bridges the gap from the reflective mode to the active mode. Psychic energy begins to move into action through

visualization-step six. An individual who scores high in six step who is one who visualizes how things are going to be when the goal is accomplished, mentally rehearses the planned activity, and imagines how successful and proud he/she will feel when the goal is achieved (Atman, 1987).

The Administration phase is made up of steps seven through ten: step 7, organize; steps 8, make it happen; step 9, push on; step 10, wrap it up. Psychic energy moves from mental visualizations to concrete actualization. The plan makes an inventory of times, persons, resources, information, events and their relationships-step seven. The subject becomes immersed in the work of the project-step eight. An individual who scores high in category eight is one who is action-oriented, immerses him/herself in the "doing" of a project, pays attention to environmental changes that occur as the action develops, is able to make changes that occur as the action develops, and is able to make changes in the plan if needed (Atman & Petlevich, 1990). Attending to the task and directly focusing on the problem will enable the individual to resist interference-step nine. Resisting interference develops conative capacity, which in turn enables the subject to become a task completer, a finisher-step ten. An individual who scores high in this category is one who meets deadlines, completes what he/she starts, pays attention to details so that things are not "lost through the cracks" and puts things away once the work is finished (Atman & Petlevich, 1990). Management used in the administration phase involves the management of self. Self-discipline and control are necessary in the self-management of the plan.

The Denouement phase is made up of step eleven, review, and step twelve, regroup. When the task is completed, all aspects of the work are evaluated and criticized-step eleven. An individual who scores high in this category is one who rewards him/herself for a job that is complete and well done and who uses rigorous criteria to evaluate/critique all aspects of the work. Finally, the completed task is reevaluated in the way it relates to the long-range goal-step twelve. "Just as the final steps in the commitment phase move the subject from the reflective mode to the active mode to the reflective mode to the active mode, denouement phase moves the subject back across the gap to the reflective mode" (Atman, 1986). The emphasis in phase four is on evaluation.

Individuals can move from the active back to the reflective mode (Atman, 1986). The twelve steps of the conation cycle form the theoretical basis for goal orientation that is incorporated in the Goal Orientation Index (Atman, 1986a). Goal Orientation Index (GOI) is an inventory to determine the goal accomplishment style. It consist of 96 items with a range

of A= rarely to E=almost always. High scores on the GOI indicate agreement with the items and low scores indicate disagreement.

One of the implications from the research using the Goal Orientation Index is the academic achievement implication of the GOI. In 1987, a study conducted by Atman at the Washington Park Middle School using the GOI revealed that there were significant differences in the goal accomplishment style profiles of academic achieving students (GPA of 3.25 and above) and nonachieving students (GPA of 1.99 and below). Results from the study indicated the need for academic counseling in order to understand at risk students. This suggests that attention must be paid to the development of skills much as time and self-management so that students who are currently "falling through the cracks can become successful within the regular academic program (Atman, 1990).

Another implication of the GOI deals with the locus of control. Locus of control is a psychological construct identified by Julian Rotter, University of Connecticut (1996), and refers to the expectancy that the individual has of being able to influence the events in his or her life. An internal locus of control refers to the belief that the reward one receives is a results of his/her ability or skill; an external locus of control refers to the belief that the reward one receives is a result of luck, fate, or actions of "powerful of others". Och (1992) deals directly with the relationship between locus of control and goal accomplishment style. Data from this study indicates that there are significant correlations between an internal locus of control and various elements of goal accomplishment style. This finding also indicates that middle school students can be encouraged to believe that the reward they receive is a result of their ability, skill, and effort through their involvement in highly structured learning environments.

STATEMENT OF THE PROBLEM

The objectives of this study were,

(1) To identify the nature of goal accomplishment styles of prospective social studies teachers.

(2) To determine the relationships among students' goal accomplishment style, and geography academic achievement by examining whether students' goal accomplishment styles is useful for predicting geography academic achievement of the prospective social studies Teachers.

(3) To use the data obtained from this study to make recommendations for enhancing Turkish geography curriculum and teaching methods.

RESEARCH QUESTIONS

The study was designed to seek answers to the following questions:

(1) Is goal accomplishment style a good predictor of geography academic achievement of the prospective social studies teachers?

ASSUMPTIONS

(1) The Goal Orientations Index (GOI) serves as a model for assessment of goal accomplishment styles of students.
(2) Goal accomplishment style can be measured by a paper/pencil test.
(3) The concepts in GOI apply in American and Turkish education settings.
(4) Students will give accurate answers to the questions found in the inventories.
(5) The achievement test used is a reliable and valid measure of students' achievement.
(6) Achievement in geography is measured in a similar way in each class involved in this study.

LIMITATIONS

(1) Academic achievement is restricted to the subject of geography.
(2) The time period for collecting data in this study is limited to one semester.
(3) The goal accomplishment style of students may change over the research time period.

SUBJECTS

The term population does not necessarily mean a body of people, although in social science it almost always does. Population refers to all cases about which a researcher wishes to make inferences. For virtually all statistical in the behavioral sciences, the intention is to use information derived from a representative sample in order to make statements about the population from which the sample was drawn. Technically, we say that we use sample statistics to estimate population parameters. Both a statistic and a parameter are numbers, the former being a Proxy fort he latter. Actually, we all make decisions based on samples even if we are not aware that we are doing so (Walsh, 1990:4). Applying Walsh's definition to the

present research study, the population of this paper would include all third class prospective social studies teachers in Mehmet Akif Ersoy University.

However, including the total population in this study is not feasible, so a random sample was used. The sample for this study will be drawn from the population of third grade social studies preservice teacher education students at Faculty of Education in Burdur.

The internal consistency of the GOI instrument (Turkish translation) as measured by coefficient alpha ranging from .6032 to .9002 (Table 2).

Table 2. Comparison of the Internal Consistency of the English and Turkish Versions: GOI

GOI	English (n=205)*	Turkish (n=158)
Step 1: Recognize needs	**.795**	**.741**
Step 2: Set Goals	**.789**	**.603**
Step3: Brainstorm Alternatives	**.820**	**.703**
Step 4: Assess Risks	**.832**	**.800**
Step 5: Select Strategies	**.941**	**.900**
Step 6: Get Your Act in Gear (GYAIG)	**.814**	**.707**
Step 7: Organize	**.855**	**.811**
Step 8: Make it Happen	**.842**	**.722**
Step 9: Push On	**.851**	**.729**
Step 10: Wrap It Up	**.843**	**.832**
Step 11: Ooo and Ahh!	**.888**	**.796**
Step 12: Purpose, Long Range Direction	**.858**	**.710**

***Atman, 1987**

DESCRIPTIVE DATA

One hundred and fifty eight geography students from preservice social studies teacher education faculty in Burdur, Turkey answered the questionnaires (Table 3).

Table 3. Sample of Student Subjects by Class and Gender.

Group	Boy	Girl	Total	%
Primary Program, A-Group	**21**	**18**	**39**	**24.7 %**
Primary Program, B-Group	**21**	**18**	**39**	**24.7 %**
Secondary (Night School) Program, A-Group	**23**	**16**	**39**	**24.7 %**
Secondary (Night School) Program, B-Group	**24**	**17**	**41**	**25.9 %**
Total	**89**	**69**	**158**	**100 %**

For the Goal Orientation Index (GOI), The mean and standard deviation are presented in Table 4

Table 4. GOI Scores for Sample of Student Subjects.

GOI	Mean	Standard Dev.
Step 1: Recognize needs	**28.91**	**4.61**
Step 2: Set Goals	**31.56**	**3.92**
Step3: Brainstorm Alternatives	**28.49**	**4.59**
Step 4: Assess Risks	**29.11**	**5.61**
Step 5: Select Strategies	**27.71**	**7.72**
Step 6: Get Your Act in Gear (GYAIG)	**30.49**	**4.94**
Step 7: Organize	**26.56**	**6.31**
Step 8: Make it Happen	**30.79**	**4.35**
Step 9: Push On	**30.13**	**5.69**
Step 10: Wrap It Up	**30.28**	**5.41**
Step 11: Ooo and Ahh!	**29.91**	**5.36**
Step 12: Purpose, Long Range Direction	**26.89**	**5.59**
Area 1: Acting	**118.91**	**16.31**
Area 2: Planning	**113.92**	**16.39**
Area 3: Reflecting	**117.99**	**17.07**

The individual scores within the 12 steps ranged from a minimum of 8 to a maximum of 40 while each of the 3 area scores ranged from a minimum of 58 to a maximum of 155. The total score for the GOI (the sum of the 3 areas' scores) ranged from a minimum of 193 to a

maximum of 458. According to Table 5. Turkish geography students have a high acting ability of goal accomplishment style.

The students transcripts reported their mean scores of two tests, the midterm and the final exam, in the second semester, 2005. Table 5. displays the means of the geography students, for each of four groups.

Table 5. The Means of Achievement Scores by Class Group

Group	Mean	Standard Dev.
Primary Program, A-Group	85.28	10.78
Primary Program, B-Group	84.49	14.23
Secondary (Night School) Program, A-Group	75.18	17.89
Secondary (Night School) Program, B-Group	77.71	13.99

Research Question (1): Is goal accomplishment style a good predictor of geography academic achievement among prospective social studies teachers?

Table 6. shows that the results of the multiple regression of academic achievement and goal accomplishment style. R-square is 7 %. Goal accomplishment style is a good predictor of academic achievement at the .05 level; teherefore, the null hypothesis is rejected.

Table 6. Regression Results for Question (1) : (Total)

Regression Results						
	Multiple R	**R-square**	**Adjusted R-square**	**Standard Error**	**F**	**Sig. F**
Total	**.847**	**.717**	**.272**	**12.7479**	**1.610**	**.023**

In three areas of the GOI (Table 7), the R-square of Area 1: Acting=4.6 %, R-square of Area 2: Planning= 3.3 %, and the R-*square of Area 3: Reflecting = 0.8 %. Therefore, the Acting and Planning areas of GOI are good predictors of academic achievement among higher education geography students in Turkey at the .05 level with significant F (.007 and .023). but the Reflecting area of GOI is not good predictors of academic achievement among higher education geography students in Turkey at the .05 level with significant F (.261). Table 7, also shows that the Reflecting area is the least useful data for preicting academic achievement among the three areas according to the R-square statistics.

The subscale scores of each area of Goal Orientation Index (GOI) were computed by summing the four step scores that make up each subscale. Total score of GOI means was calculated from the sum of three area scores.

Table 7. Regression Results for Question (1)-b: (3 Area)

Regression Results						
	Multiple R	**R-square**	**Adjusted R-square**	**Standard Error**	**F**	**Sig. F**
Acting	**.215**	**.046**	**.040**	**14.6347**	**7.555**	**.007**
Planning	**.181**	**.033**	**.027**	**14.7376**	**5.278**	**.023**
Reflecting	**.090**	**.008**	**.002**	**14.9240**	**1.275**	**.261**

For each step of GOI, Table 8 shows the R-square values of each step; 0.2 % (step 1), 2.9 % (step 2), 0.8 % (step 3), 0.2 % (step 4), 0.6 % (step 5), 1.0 % (step 6), 4.5 % (step 7), 0.6 % (step 8), 3.5 % (step 9), 7.5 % (step 10), 0.5 % (step 11), and 1.8 % (step 12). Teherefore, 4 of the steps were good predictors of achievement, the exceptions being step 1, step 3, step 4, step 5, step 6, step 8, step 11 and step 12. As evidenced Table 8, step 10 and step 7 have higher R-square values than those of the other steps.

Table 8. Regression Results for Question (1)-a:12 steps)

Regression Results						
	Multiple R	**R-square**	**Adjusted R-square**	**Standard Error**	**F**	**Sig. F**
Step 1	**.045**	**.002**	**-.004**	**14.9695**	**.320**	**.573**
Step 2	**.170**	**.029**	**.023**	**14.7655**	**4.668**	**.032**
Step 3	**.090**	**.008**	**.002**	**14.9246**	**1.262**	**.263**
Step 4	**.047**	**.002**	**-.004**	**14.9683**	**.345**	**.558**
Step 5	**.079**	**.006**	**.000**	**14.9378**	**.983**	**.323**
Step 6	**.101**	**.010**	**.004**	**14.9076**	**1.621**	**.205**
Step 7	**.212**	**.045**	**.039**	**14.6435**	**7.357**	**.007**
Step 8	**.080**	**.006**	**.000**	**14.9365**	**1.010**	**.316**
Step 9	**.187**	**.035**	**.029**	**14.7191**	**5.684**	**.018**
Step 10	**.273**	**.075**	**.069**	**14.4136**	**12.611**	**.001**
Step 11	**.068**	**.005**	**-.002**	**14.9506**	**.714**	**.399**
Step 12	**.134**	**.018**	**.012**	**14.8493**	**2.860**	**.093**

CONCLUSION

The Acting, and Planning abilities of Turkish geography students are stronger than their Reflecting ability. These facts suggest that highlighting only one element of the range of teaching/learning activities available for teachers leaves little opportunity for students to develop creative talents or critical problem-solving skills. The results of this study imply that the Turkey educational system might be strengthened by providing various opportunities for students to develop their problem solving, critical thinking, creative thinking, inquiry learning and decision making skills.

The conclusion means that knowing the goal accomplishment style of a student provides statistical information about the academic achievement of that person, and vice versa.

IMPLICATIONS

This section highlights the problems that the Turkey geography education system now faces and thereby presents future direction.

The first limitation faced by education in Turkey is large classes and a chronic lack of materials and efficiency. During the last nine years, Turkey has seen a dramatic expansion of middle school education however, owing to its limited budget, the Turkey government could'nt concentrate on expanding the physical facilities of schools. The growth of the school population outpaced that of the physical facilities, and classrooms became crowded. As qualitative improvements has not kept pace with quantitative growth, Turkey education is now faced with a lack of quality education. In large classes, teachers cannot provide individual attention or opportunities for personal contact considered to be essential for education of high quality. In order to manage large classes, teachers depend heavily on rote memorization, and they cannot use excessive problem solving activities a hands-on exploratory activities.

With regard to the goal accomplisment style of students in geography classes, the results of this study showed that subjects high in goal accomplishment style had higher scores in achievement than subjects who were low in goal accomplisment style. However, based on the results of this study, the reflecting area of goal accomplishment style was a less important factor in geography achievement. It also showed that teaching methods support goal accomplishment style with respect to geography achievement.

From the available data in this study, it was not possible to determine all characteristics of Turkish geography education eigth respect to teaching methods, and goal accomplishment style, but some conclusions and trends were observed. Based on the conclusions and observed trends in this study, some implications may be provided for future Turkish geography education. The implications arise from the facts related to providing equal educational opportunities for students where, as individuals who have different styles they will be able to develop their learning preferences were fully.

In Turkish geography education system, what and how teachers instruct students are decided by tests and evaluations like entrance exams, and the success rate on entrance exams is the most important factor in deciding the quality of each school. Therefore, it is natural that tests and evaluations like entrance exams have an influence on the methods of teaching and the levels of learning in the schools of Turkey.

This kind of test has led teachers to depend heavily on lecturing, rote learning, and memorization of isolated facts. In this type of environment for geography education, teachers may neglect students' different learning preferences like learning style and goal accomplishment style.

In this test-oriented educational environment, in order to consider students' learning preferences, and to encourage higher thinking abilities like creativity and problem-solving, it is necessary to develop now and varied geography assessments, for example: essays, oral examinations, discussion, observation, projects, portfolios, as well as multiple choice examinations.

Education is defined in terms of process as well as outcomes. That is to say, "what students know' is important in education, but understanding 'how they know and apply' is equally important. Even the role of the teacher as a classroom manager of what students learn is often an inadequate approach to meeting the complex and different intellectual, emotional, social, and learning needs of today's students. Teaching methods and discipline strategies that worked ten or twenty years ago are no longer effective in these new situations. Althought it is important for teachers to know the contents of geography, it is more important to teach in keeping with students' preferences and characteristics such as learning style. Today, teachers must understand the cognitive, physical, and psychological needs of students. According to Atman (1991), this kind of teacher is called a "mentor". The conceptualization of the mentor is one who (1) challenges the intellectual capacity, (2) nurtures the emotional stability, (3)

encourages the social sensitivity, (4) facilities the physical maintenance, and (5) coaches the psychological maturity (conative capacity) of learners.

The challenge facing Turkish geography educators today is how to raise academic achievement levels by enhancing, not destroying, the motivation of the students. Student growth can be facilitated in the best way by teachers who understand themselves and their own learning style, and who choose to support the various other learning styles of students (Atman, 1991).

In order to meet different students' learning prefences, and to prepare alternative testing procedures, teachers need to be trained in new and various instructional methods. Especially, in geography as a subject, teachers have to be trained for technology education such as the geographic information system (GIS). The Geographic Information System (GIS) is a tool that uses the power of the computer to pose and answer geographic questions. Decision makers in the educational system in Turkey should recognize (1) need for developing lesson plans using technology, (2) the need for training for teachers in the use of new teaching materials and methods, as well as (3) to correct the lack of facilities for such use by all students.

In 2005, the budget for education is 12.1% of the entire budget for republic of Turkey (Ministry of Education, 2005). Althought the budget for education is the biggest part of the national budget, there are limitations for its potential for improving the educational environment in a short time. Therefore, it is necessary to develop a policy of long-term investment of governmental resources to improve the Turkish educational environment. This long-term investment has to include content to encourage specifically the instruction and evaluation of teachers through teacher re-training programs. It must also reduce the teachers' administrative workload in order to allow them to concentrate on instruction and evaluation. It must further reduce the psychological burden on students and teachers by decreasing the number of students in classroom, as well as constructing adequate facilities for all students. It is necessary and appropriate to share in the decision-making processes that affect students.

RECOMMENDATIONS

Based on the findings, the following recommendations are made for guiding further study.

(1) Since this study focused on the teaching of geography in prospective social studies teacher education faculty, which are located in Burdur, its results may not

necessarily be valid in different educational environments. It is recommended that a replication of this study be conducted using the instrument employed in this study, while using subjects of different grade levels and from different areas.

(2) Academic achievement can be predicted by other factors such as EQ. Therefore, further studies similar to this one, controlling for EQ or other measures, may result in more reliable and valid data on which to base research conclusions.

(3) Goal accomplishment style and achievement can be altered by temporal factors. In this research, the academic tests were focused on the multiple choice questions and short answer questions. Results from this study suggested that if the type of test were changed to reflect different learning style, the students' achievement would be changed as well. In this respect, further research should examine the implications of differences in teachers' styles of instruction, use of various teaching materials, and a further clarification of the personal characteristics of students that promote academic achievement.

(4) It is important that we establish whether geography students in higher education in the early twenty-first century have a predominant learning style and whether this varies between countries and the stage the students are in their studies. There is a need to extend research into this important area and find ways of making such research accessible to classroom practitioners in a form that they can understand students' learning preferences.

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